
1994 Statistical Report

Sexually Transmitted Disease Services

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STD Services 75th Anniversary

In 1995, STD Services celebrates 75 years of service to the citizens of Alberta. Although the information in this report represents the year 1994, it is being published in 1995. In this anniversary year, we would like to recognize the significant contributions made to the control of STD in Alberta by all employees, both past and present.

1918

First Venereal Disease Prevention Act passed by the Alberta legislature

1920

Division of Social Hygiene inaugurated with clinics in Edmonton, Calgary, Lethbridge, and Medicine Hat for free treatment and diagnosis of venereal disease. A health educator position was created and consultation services were provided to physicians, as well as free drugs for treatment.

1949

Mobile Clinic established to enable contact tracing of sexual partners throughout the province

1965

First revision of venereal disease legislation

1978

STD clinic opens attached to the health unit in Fort McMurray

1980

First case of AIDS identified in Alberta

1985

New Public Health Act with non gonococcal urethritis/ mucopurulent cervicitis reportable

Social Hygiene Services becomes STD Control (STD Services in 1991)

1987

AIDS Program established within STD Services and moved to Communicable Disease Control in 1989

STD Research Laboratory established

Toll-free STD/AIDS information introduced

1988

Chlamydia trachomatis becomes a notifiable STD

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Executive Summary

Sexually Transmitted Disease (STD) Services provides a comprehensive program to control STD in Alberta. The 1994 report presents current statistics and trends of STD in Alberta. This report also includes an overview of diagnostic and treatment services available through clinics in Calgary, Edmonton and Fort McMurray (operated under the auspices of the Fort McMurray Health Unit). In addition, it contains a synopsis of the research undertaken and completed by the Clinical Investigation Unit as it contributes to improved diagnosis and management of STD. The report also provides an outline of epidemiologic services that include partner notification for STD, including HIV infections, as well as activities of the Education Unit, which is responsible for disseminating STD/HIV/AIDS information to public and professional audiences.

The list of notifiable STD, includes non-gonococcal urethritis/ mucopurulent cervicitis (NGU/MPC), *Chlamydia trachomatis*, *Neisseria gonorrhoeae*, syphilis, chancroid and lymphogranuloma venereum. In 1994, no cases of chancroid or lymphogranuloma venereum were identified. Although HIV/AIDS is not reportable to STD Services, information on HIV/AIDS has been included because it is a significant part of the STD program.

The incidence of *Chlamydia trachomatis* and also *Neisseria gonorrhoeae* decreased in 1994. *Chlamydia trachomatis* continues to be the most frequently identified sexually transmitted bacterial pathogen, and the rate of 185.7 per 100,000 population is a decrease of five per cent from the previous year. The dramatic 40 per cent decrease in incidence for *Neisseria gonorrhoeae*, from 31.2 per 100,000 population in 1993 to 18.6 per 100,000 population in 1994, reflects the decline of this infection worldwide. The highest incidence for both these infections is, once again, seen in women aged 15 to 19 and 20 to 24. Men aged 20 to 24 continue to exhibit the next highest incidence for both these infections. However, incidence of disease in all groups decreased the same as or greater than the overall decrease. Although the incidence of *Neisseria gonorrhoeae* has declined, a high level of antimicrobial resistance continues. The very low

incidence of syphilis continues with a rate of 2.4 per 100,000 population and only eight cases of infectious syphilis in 1994.

Attendance at the STD clinics decreased three per cent ranging from one per cent in Fort McMurray to four per cent in Calgary. However, HIV-related visits increased a dramatic 18 per cent and accounted for 47 per cent of all clinic visits. The male to female ratio for all clinic visits fell from 1.7:1 in 1993 to 1.5:1 in 1994 and demonstrates an increase in the number of women using clinic services. In contrast, the predominance of men seen by clinic physicians is demonstrated by the male to female ratio of 4.8:1 and is explained by the major role these clinics assume in providing ongoing care for patients infected with HIV.

Disease prevention and health promotion related to STD/HIV/AIDS is the focus of the Education Unit. In 1994, nurse educators provided 704 sessions. In addition, medical staff made 69 presentations. The largest number of presentations were made to students. The regular and consistent use of the telephone information system demonstrates the broad acceptance and accessibility of this service. In 1994, 28,256 calls were made to the toll-free, province-wide STD/HIV/AIDS information line. An additional 9,611 calls were made directly to the nurses.

The Clinical Investigation Unit, with a clinical research nurse and a laboratory technician on staff, completed another successful year. Seven research projects were completed, and an additional 12 were ongoing during 1994.

The central control office in Edmonton, the clinics, and the Mobile Unit continue to provide consultation to physicians as well as a range of epidemiologic services. In 1994, a total of 3,047 investigations were conducted to locate partners of individuals infected with notifiable infections, as well as HIV/AIDS; 80 per cent of the investigations were completed successfully.

Incidence of *Neisseria gonorrhoeae*

In 1994, the incidence of *Neisseria gonorrhoeae* again showed a dramatic decrease. The rate of 18.6 per 100,000 population represents a decline of 40 per cent from 1993 and a decrease of 325 cases. The male to female ratio of 1.1:1 is unchanged.

There were significantly more females than males aged 15 to 19 with *Neisseria gonorrhoeae* ($p < 0.0001$). As in previous years, women aged 15 to 19 and 20 to 24 exhibited the highest age and gender specific rates of 99.8 and 71.6 per 100,000 population, respectively. This is followed by men aged 20 to 24 with a rate of 62.2 per 100,000 population and men 15 to 19 and 25 to 29 with rates of 42.6 and 42.9 per 100,000 population, respectively. The goal to reduce the incidence of gonorrhoea to 150 per 100,000 population for the 15 to 19 and 20 to 24 year old categories by the year 2000 has been realized and is expected to be maintained. Each age category exhibited a decrease in incidence greater than the overall decrease of 40 per cent, with the exception of men aged 25 to 29 where the decrease was 38 per cent and women age 30 to 39 with a 7 per cent increase. A small number of cases of *Neisseria gonorrhoeae* continue in children less than 9 and 10 to 14. This is unchanged from 1993.

Antimicrobial resistance is an important consideration when treating *Neisseria gonorrhoeae*. For the second year, overall resistance decreased by 3 per cent from 22 per cent to 19 per cent. This is likely

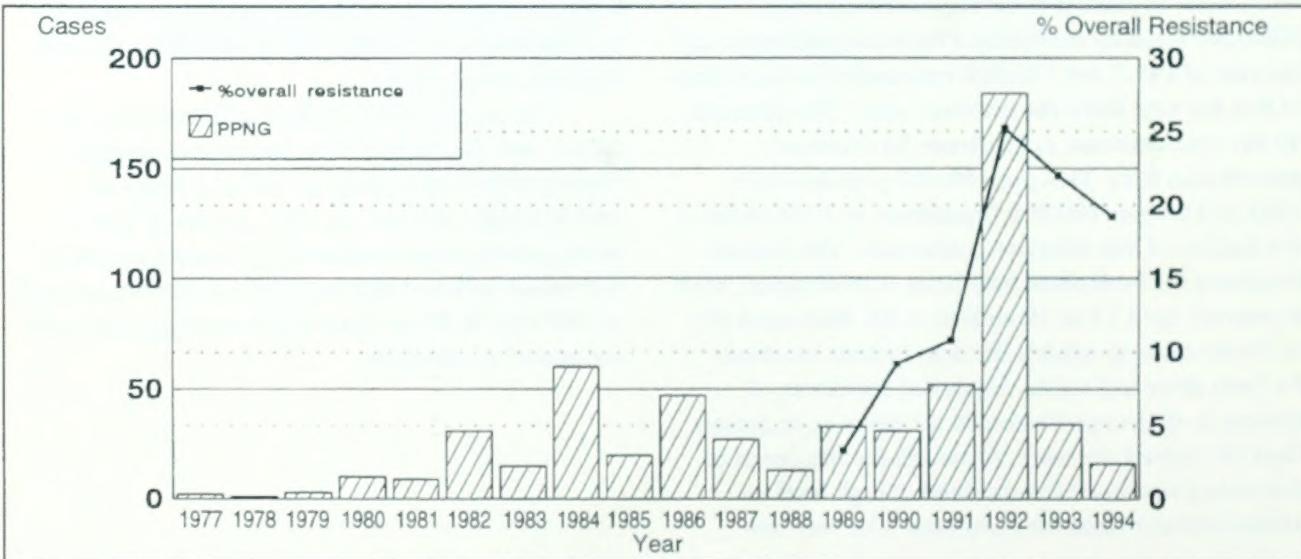
related to a 54 per cent decrease in the incidence of penicillinase producing *Neisseria gonorrhoeae* (PPNG). Sensitivity to penicillin, tetracycline and ciprofloxacin was known for 97 per cent of all isolates of *Neisseria gonorrhoeae*. Resistance to ciprofloxacin was reported in one isolate and intermediate resistance in five isolates. There was a total of 16 cases of PPNG (nine males and seven females). Of these, six individuals had sexual contact in a PPNG endemic area and two had contact in both an endemic area as well as in Alberta. The remaining eight had sexual contact only in Alberta.

Table 1: *Neisseria gonorrhoeae* Cases and Rates by Age and Sex, Alberta, 1994

Age (years)	Male		Female		Total	
	Cases	Rate*	Cases	Rate*	Cases	Rate*
<1	0		1		1	
1-4	0	0	1	1.0	1	0.5
5-9	0		0		0	
10-14	3	2.8	8	8.0	11	5.4
15-19	41	42.6	92	99.8	133	70.6
20-24	62	62.2	70	71.6	132	66.8
25-29	48	42.9	32	29.3	80	36.2
30-39	77	29.1	30	11.8	107	20.7
40-59	31	9.9	5	1.7	36	5.9
60+	4	2.5	0	0	4	1.1
Age not stated	0		1		1	
Total	266	19.5	240	17.8	506	18.6

* Rate per 100,000 population

Figure 1: Cases of Penicillinase-producing *Neisseria gonorrhoeae* Alberta, 1977 - 1994



Incidence of Syphilis

The very low incidence of syphilis has been maintained for a second year. In 1994, there was a total of 66 cases for an overall rate of 2.4 per 100,000 population. This rate remains unchanged from 1993 figures. The male to female ratio is 1.1:1. Of the 66 cases, eight (12 per cent) were infectious (primary, secondary and early latent). These eight cases occurred in five men and three women between the ages of 25 and 39.

In contrast to the other STDs, the highest age and gender specific rates for syphilis were found in women over age 60 and men aged 25 to 29 and over 60, with rates of 6.7, 5.4 and 5.0 per 100,000.

population, respectively. The higher incidence in men and women over age 60 is likely a reflection of late latent syphilis detected when screening is done for immigration purposes. The single male case under age one was congenital syphilis detected when serology was performed at the time of delivery. Two of the three cases of late latent syphilis in women under age 25 were detected on immigration screening. There were five cases of neurosyphilis: three men and two women. One male with neurosyphilis is known to be HIV negative. HIV serology was not done on the four remaining individuals as there was no apparent risk by history.

■ Table 2: Syphilis Cases and Rates by Age and Sex, Alberta, 1994

Age (years)	Male		Female		Total	
	Cases	Rate*	Cases	Rate*	Cases	Rate*
< 1	1	0.5	0	0	1	0.2
20 - 24	0	0	3	3.1	3	1.5
25 - 29	6	5.4	4	3.7	10	4.5
30 - 39	11	4.2	7	2.8	18	3.5
40 - 59	9	2.9	4	1.3	13	2.1
60+	8	5.0	13	6.7	21	5.9
Total	35	2.6	31	2.3	66	2.4

*Rate per 100,000 population

Incidence of *Chlamydia trachomatis*

■ *Chlamydia trachomatis* is the most frequently identified sexually transmitted bacterial pathogen. In 1994, there were 5,043 cases with a rate of 185.7 per 100,000 population. This represents an overall decrease of five per cent in rate from 1993 and three per cent in the number of cases. If this slower rate of decline is maintained, the goal to reduce the incidence of *Chlamydia trachomatis* to 100 per 100,000 population by the year 2000 will not be reached. However, this gradual decrease in incidence since 1988 likely reflects the education initiatives that have been targeted at health care workers and individuals at greatest risk of acquiring the infection, as well as partner notification which facilitates early identification and treatment of cases.

There were significantly more incidents of *Chlamydia trachomatis* in women aged 15 to 19 than in men the same age ($p < 0.0001$). These adolescents are more likely to have multiple partners and engage in unprotected intercourse.

Similar to *Neisseria gonorrhoeae*, women aged 15 to 19 had the highest age and gender specific rate of 1,718.0 per 100,000 population. However, it is

important to note a five per cent decrease in disease incidence in this group. The second highest age and gender specific rate of 1,468.7 per 100,000 population is found in women aged 20 to 24, which represents a two per cent decrease from 1993. This was followed by men aged 20 to 24 with a rate of 510.5 per 100,000 population. Although not significant, the eight per cent increase in incidence in this group contrasts the two per cent decrease for women of the same age. An increase in men aged 30 to 39 is also noted and not understood.

The male to female ratio of 1:3.2 indicates a disproportionate number of women diagnosed with *Chlamydia trachomatis*. This is due to increased detection of asymptomatic women through screening. The lower rates in men suggest that partners of these women are either not diagnosed or not reported.

The importance of screening pregnant women at risk in the third trimester is emphasized by the 14 reports attributed to perinatal transmission in children less than one year of age. The three reports in children between the ages of one and nine are indicators of sexual abuse.

■ Table 3: *Chlamydia trachomatis* Cases and Rates by Age and Sex, Alberta, 1994

Age (years)	Male		Female		Total	
	Cases	Rate*	Cases	Rate*	Cases	Rate*
<1	6		8		14	
1-4	0	2.8	1	5.4	1	4.0
5-9	0		2		2	
10-14	0	0	86	86.0	86	41.9
15-19	225	233.9	1584	1718.0	1809	960.2
20-24	509	510.5	1454	1468.7	1963	993.9
25-29	247	221.1	434	396.7	681	308.0
30-39	157	59.4	236	93.1	393	75.9
40-59	34	10.9	45	15.0	79	12.9
60+	1	0.6	6	3.1	7	2.0
Age not stated	0		8		8	
Total	1179	86.3	3864	286.1	5043	185.7

*Rate per 100,000 population

Incidence of Non-gonococcal Urethritis/Mucopurulent Cervicitis (NGU/MPC)

The NGU/MPC rate of 105.3 per 100,000 population is on target to reach the goal of reducing the incidence to 100 per 100,000 population by the year 2000. The overall incidence declined 21 per cent in 1994 with a smaller decrease seen in men (17 per cent) than women (28 per cent). A significant difference in incidence between men and women, unchanged from previous years, is demonstrated by the male to female ratio of 2.7:1. This is likely due to patients recognizing and health care providers diagnosing an STD in the symptomatic male more readily than in the asymptomatic female.

The highest age and gender specific rate of NGU/MPC is found in men between the ages of 15 and 29. A decrease in incidence of 8 per cent and 23 per cent was seen in men aged 20 to 24 and 25 to 29 with rates of 674.0 and 359.9 per 100,000 population, respectively. However, men aged 15 to 19 showed an increase of 10 per cent over 1993, with a rate of 311.9 per 100,000 population. A gradual increase over the past three years has been seen in this age category of men.

■ Table 4: Non-gonococcal Urethritis/Mucopurulent Cervicitis Cases and Rates by Age and Sex, Alberta 1994

Age (years)	Male		Female		Total	
	Cases	Rate*	Cases	Rate*	Cases	Rate*
10 - 14	5	4.7	19	19.0	24	11.7
15 - 19	300	311.9	231	250.5	531	281.8
20 - 24	672	674.0	259	264.8	931	471.4
25 - 29	402	359.9	126	115.2	528	238.8
30 - 39	462	174.8	100	39.5	562	108.6
40 - 59	175	56.0	25	8.3	200	32.6
60+	11	6.8	0	0	11	3.1
Age not stated	59		13		72	
Total	2086	152.7	773	57.2	2859	105.3

*Rate per 100,000 population

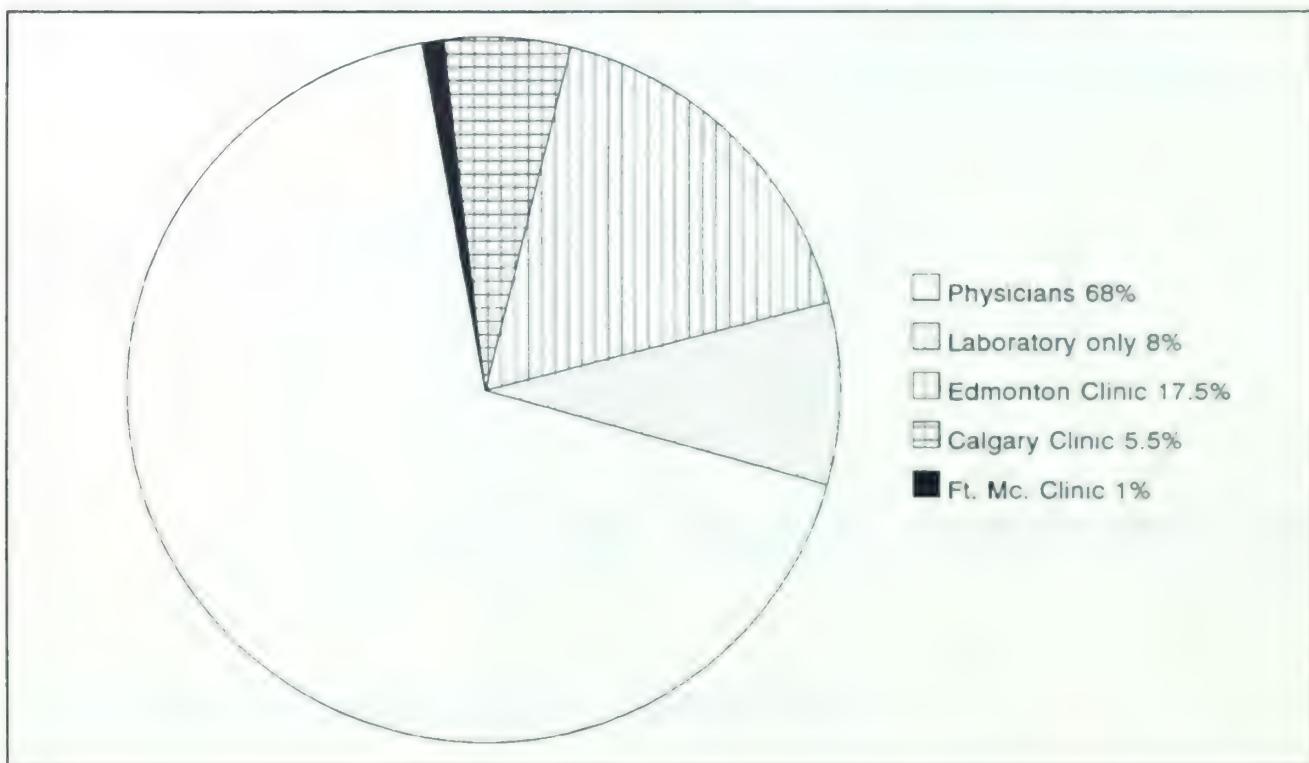
Notification by Reporting Agency

The diagnosis and treatment of sexually transmitted diseases in Alberta is shared by physicians and the STD clinics in Edmonton, Calgary and Fort McMurray. Physicians diagnose and treat 68 per cent and 81 per cent of the notifiable, organism-specific diseases (*Neisseria gonorrhoeae* and *Chlamydia trachomatis*). The three STD clinics diagnose and treat 24 per cent of cases of *Neisseria gonorrhoeae* and 12 per cent of cases of *Chlamydia trachomatis*. In addition, eight per cent of *Neisseria gonorrhoeae* cases and seven per cent of *Chlamydia trachomatis* cases are reported by the laboratory only. These figures are similar to 1993. Although the percentage of cases of *Neisseria gonorrhoeae* diagnosed and treated by the three STD clinics remained

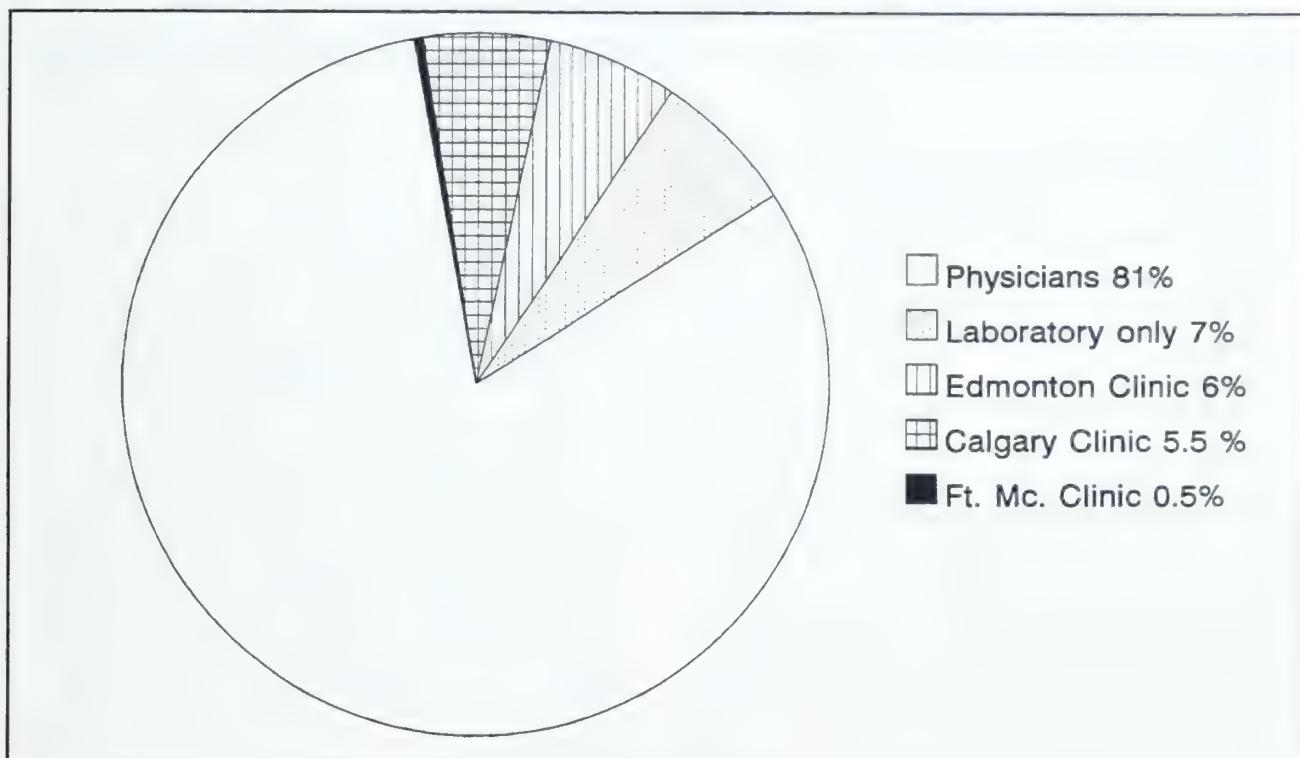
unchanged from 1993, the percentage of cases diagnosed and treated by the STD clinic in Edmonton increased by six per cent. The breakdown in reporting *Chlamydia trachomatis* is unchanged from 1993.

The proportion of cases of NGU/MPC reported by physicians in 1994 increased from 43 per cent to 53 per cent. This change is accounted for by a dramatic decrease in the number of cases reported by the Edmonton STD Clinic. The clinic in Edmonton diagnosed and treated 1,253 cases of NGU/MPC in 1993 and 722 in 1994. This 74 per cent decrease is related to an error of omission in compiling statistical data in the Edmonton STD Clinic.

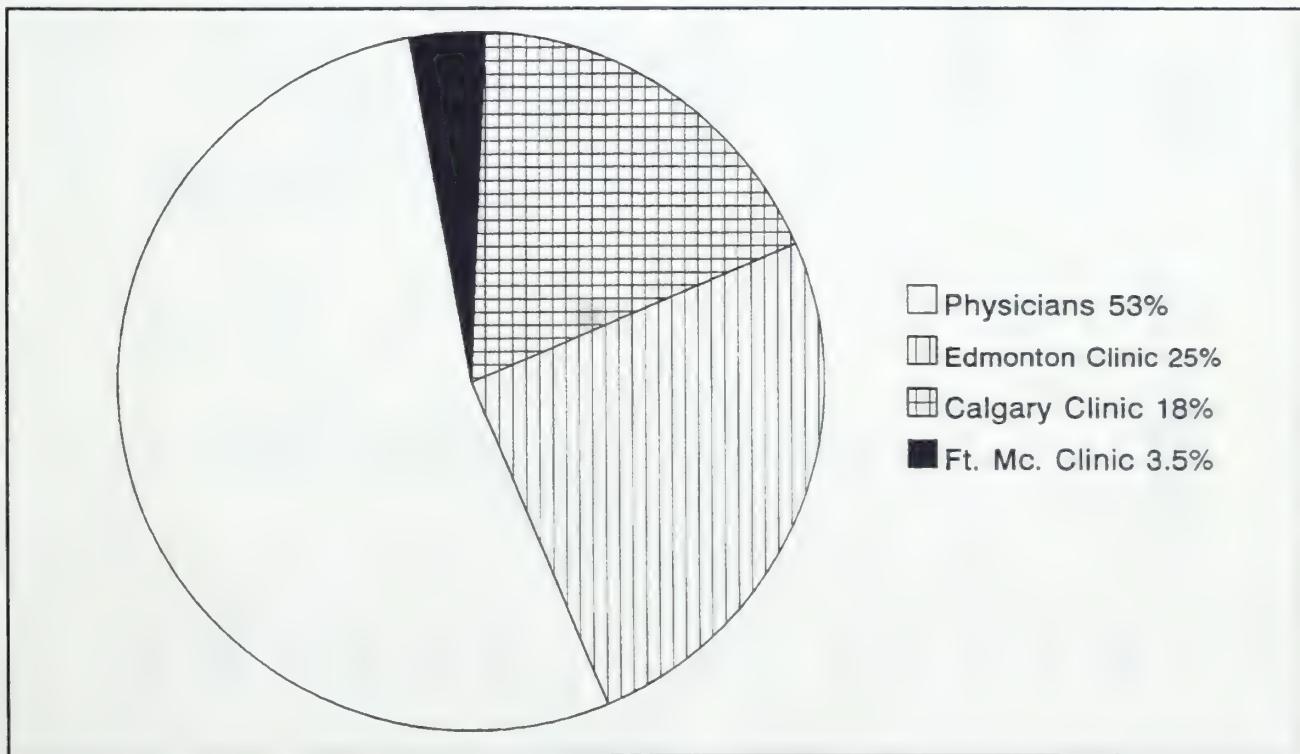
■ Figure 2: Percentage of Reported Cases of *Neisseria gonorrhoeae* by Reporting Agency, Alberta, 1994



■ Figure 3: Percentage of Reported Cases of *Chlamydia trachomatis* by Reporting Agency, Alberta, 1994



■ Figure 4: Percentage of Reported Cases of Non-gonococcal Urethritis/Mucopurulent Cervicitis by Reporting Agency, Alberta, 1994



Trends in Sexually Transmitted Disease Since 1950

The incidence of reportable STDs continued to decline in 1994. However, the true incidence is unknown due to the large number of non-reportable diseases. Infections like herpes simplex and human papilloma virus (venereal warts) likely occur with greater frequency than traditional STDs (*Neisseria gonorrhoeae*, *Chlamydia trachomatis* and syphilis).

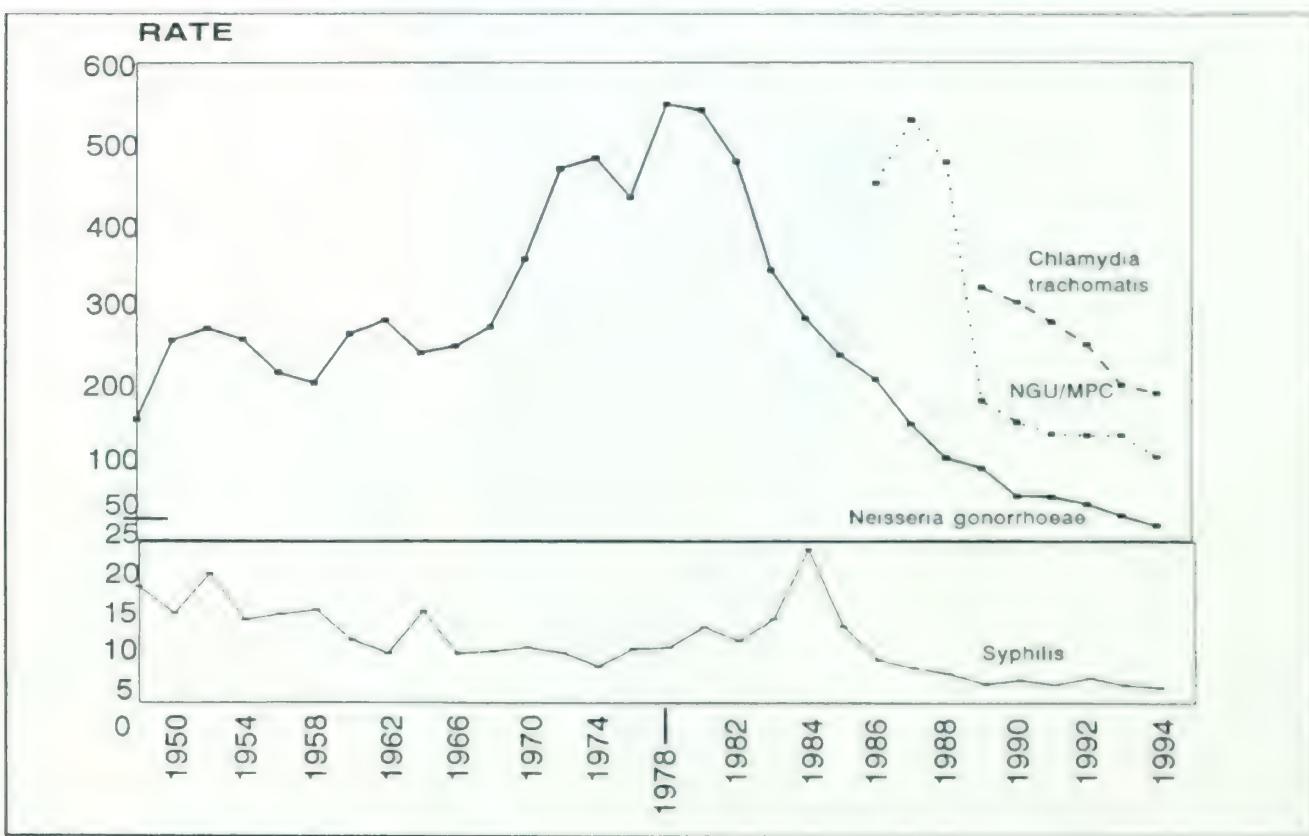
Since 1980, when the highest incidence was reported and the rate was 547.8 per 100,000 population, the number of cases of *Neisseria gonorrhoeae* has declined each year. The most significant decreases have occurred in the last five years. In 1994 *Neisseria gonorrhoeae* decreased dramatically by 40 per cent to a rate of 18.6 per 100,000 population. The 16 cases of penicillinase producing *Neisseria gonorrhoeae* (PPNG) represent a 54 per cent decrease. Although it is lower than the

previous two years, antimicrobial resistance remains high at 19 per cent.

In 1986, the syndrome non-gonococcal urethritis mucopurulent cervicitis (NGU/MPC) became a reportable STD in Alberta, and a control program was initiated to reduce disease incidence. In 1989, *Chlamydia trachomatis* became notifiable and was separated from NGU/MPC. Over the intervening six years, the incidence of *Chlamydia trachomatis* has declined yearly. However, the five per cent decrease in 1994 is less than in the previous three years. During the same period of time, with the exception of 1993, the incidence of NGU/MPC decreased each year, with the largest decrease of 21 per cent in 1994.

The incidence of syphilis at 2.8 per 100,000 population is once again the lowest on record. There were no cases of chancroid or lymphogranuloma venereum.

■ Figure 5: Incidence Rate per 100,000 Population for Syphilis, *Neisseria gonorrhoeae*, *Chlymadia trachomatis* and Non-Gonococcal Urethritis/Mucopurulent Cervicitis. 1950 - 1994, Alberta



■ Table 5: Syphilis, *Neisseria gonorrhoeae*, *Chlamydia trachomatis*, Non-gonococcal Urethritis/Mucopurulent Cervicitis Cases and Rates per 100,000 population, Alberta, 1950-1994

Year	Gonorrhoeae		Syphilis		NGU/MPC		Chlamydia	
	Cases	Rate*	Cases	Rate*	Cases	Rate*	Cases	Rate*
1950	1981	152.0	165	18.1				
1952	2450	251.8	135	13.9				
1954	2819	266.7	212	20.1				
1956	2842	253.0	145	12.9				
1958	2548	211.3	167	13.8				
1960	2560	198.3	186	14.4				
1962	3560	260.0	134	9.8				
1964	3953	276.7	110	7.7				
1966	3447	235.7	208	14.2				
1968	3729	244.4	118	7.7				
1970	4290	268.1	134	8.0				
1972	5842	353.2	143	8.6				
1974	8036	466.9	136	7.8				
1976	8657	480.3	108	5.7				
1878	8451	430.9	165	8.4				
1980	11474	547.8	181	8.6				
1982	11066	476.3	225	9.7				
1984	6712	279.9	574	23.9				
1986	4991	203.0	162	6.7	11051	448.7		
1987	4107	146.9	132	5.5	12753	527.9		
1988	2536	104.2	110	4.6	11567	475.5		
1989	2217	91.2	74	3.0	4277	175.9	7727	318.0
1990	1380	55.9	90	3.6	3693	149.5	7412	300.1
1991	1393	55.2	73	2.9	3386	134.3	6936	275.1
1992	1174	45.8	100	3.9	3393	132.3	6335	247.0
1993	831	31.2	74	2.8	3524	132.4	5208	195.6
1994	506	18.6	66	2.4	2859	105.3	5043	185.7

Human Immunodeficiency Virus (HIV) Serologic Testing

HIV seropositivity is not a notifiable condition in Alberta. Serologic testing for HIV is performed by the Provincial Laboratories of Public Health in Edmonton and Calgary and the laboratories of the Canadian Red Cross Blood Transfusion Service. These laboratories report non-nominal epidemiologic information to Communicable Disease Control and Epidemiology, Alberta Health.

The number of serologic tests performed at the provincial laboratories increased 13 per cent from 1993; however, seropositivity remained constant reflecting increased testing of individuals at lower risk. Red Cross screening identified only two infected individuals.

Homosexual men continue to comprise the largest group of seropositive individuals. However, the cumulative per cent positive for this group continues its decline and fell a further two per cent in 1994. Injection drug users, who again demonstrated the second highest risk factor, showed the greatest increase of 46 per cent. The number of reactive serologies attributable to heterosexual transmission increased seven per cent resulting in a cumulative per cent positive of 5.9 per cent. For the first time, there

were no new infections in recipients of blood and blood products.

A cumulative total of 206 samples from females have been found to be positive; 199 in adult women. Since reporting is non-nominal, this does not necessarily indicate 199 infected individuals. No risk information was available for 26 females. Of the remaining 173, 79 acquired infection through heterosexual contact, 19 by receiving blood or blood products, 65 by injection drug use and eight were from an HIV endemic area. The two remaining adult females were classified as "other" risk. An additional two females were infants, born to seropositive mothers, bringing this cumulative total to seven.

It is difficult to generalize about the prevalence of HIV, as individuals self select whether or not they are tested. However, the level of infection appears to be decreasing among homosexual men, but increasing among heterosexual men, women and injection drug users. Persons who engage in unprotected sexual contact with multiple partners, and those who inject drugs and share needles must recognize that they are placing themselves, their sexual/needle-sharing partners and unborn children at risk.

■ Table 6: HIV Serologic Testing, Alberta, 1986-1994

Year	Provincial Laboratory		Red Cross	
	Total Tested	Number Positive(%)	Total Tested	Number Positive(%)
1986	2,156	212(9.8)	156,304	26(0.017)
1987	12,862	319(2.5)	122,443	6(0.005)
1988	12,786	232(1.8)	123,782	2(0.002)
1989	13,262	331(2.5)	122,342	6(0.005)
1990	16,612	253(1.5)	125,503	1(0.001)
1991	25,387	262(1.0)	133,444	0(0.000)
1992	46,181	307(0.7)	126,801	2(0.002)
1993	49,022	228(0.5)	118,828	1(0.0008)
1994	55,429	258(0.5)	112,039	2(0.0018)
Total	233,697	2,402(1.0)	1,141,046	46(0.0040)

Table 7: HIV Seropositivity by Risk Factor and Year, Alberta, 1986-1994

Risk Factor	1986	1987	1988	1989	1990	1991	1992	1993	1994	Cumulative (%)
Homosexual	163	203	185	192	171	186	189	121	119	1,529 63.7
Blood Recipient	7	36	16	17	8	6	4	1	0	95 4.0
Heterosexual	0	6	4	8	10	14	37	30	32	141 5.9
Other	6	17	2	28	18	13	13	17	26	140 5.8
Injection drug use	2	5	5	8	15	27	41	52	76	231 9.6
Not stated	34	52	20	78	31	16	23	7	5	266 11.1
Total	212	319	232	331	253	252	307	228	258	2,402 100

Acquired Immunodeficiency Syndrome (AIDS)

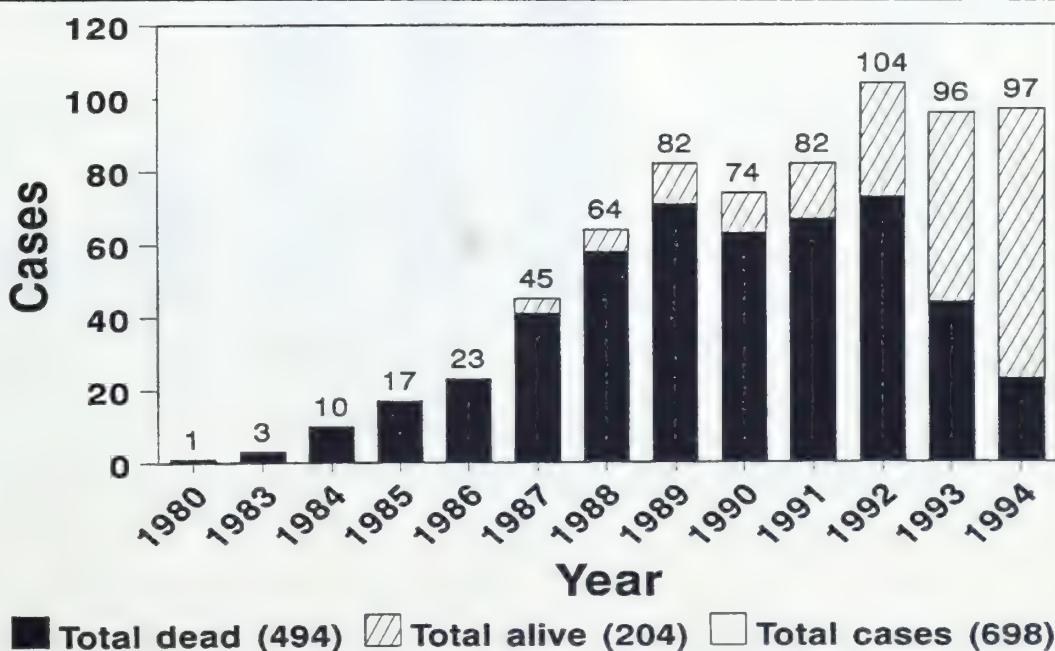
Since Alberta reported its first case of AIDS in 1980, there have been a cumulative total of 698 cases. Throughout this section of the report, the numbers have been updated to accurately reflect previously unreported cases diagnosed in earlier years. During 1994, a total of 97 new cases were reported, virtually the same number as 1993. This is the second year that reported cases have not increased. This stability in new cases likely will not continue as new seropositive individuals continue to come forward.

On a regional basis, Calgary continues to have the highest new and cumulative number of cases. However, the proportion of new cases from Calgary decreased from 65 per cent to 57 per cent. Edmonton-based cases rose slightly from 30 per cent to 32 per cent. New cases reported from northern Alberta.. the City of Red Deer and north excluding Edmonton.. increased dramatically from two per cent to eight per cent. The proportion of total cases by location did not change significantly. The age distribution of patients when diagnosed also remains basically stable. As well, the primary presenting diagnosis remains unchanged and survival remains stable at 31 per cent.

The distribution of risk behaviour or exposure for new cases shifted in 1994. Homosexual men accounted for 58 per cent of new cases, an increase of four per cent from 1993. Injection drug users represented four per cent of new cases in 1994 compared to only one per cent in 1993. Similarly, heterosexual cases increased from four per cent in 1993 to six per cent in 1994. Decreases in new cases were noted for recipients of blood or blood products, bisexual men and homosexual/bisexual injection drug users. The unknown risk group also decreased from three per cent in 1993 to one per cent in 1994.

Changes were also seen in cumulative cases. Cumulative increases continue to be found among heterosexuals, bisexuals, injection drug users and paediatric cases. As long as cases among women and injection drug users continue to increase, the number of paediatric cases are expected to rise. Decreases in cumulative cases occurred in recipients of blood or blood products and homosexual males. Heterosexual transmission demonstrates the greatest increase and homosexual transmission the greatest decrease.

■ Figure 6: New AIDS Cases by Year of Onset, Alberta, 1980 - 1994



■ Table 8: New and Cumulative AIDS Cases by Location, Alberta, 1980-1994

Location	New Cases	(%)	Total Cases	(%)
Calgary	68	57.1	403	57.7
Edmonton	38	31.9	221	31.7
North*	9	7.6	35	5.0
South	4	3.4	39	5.6
Total	119^a	100.0	698	100.0

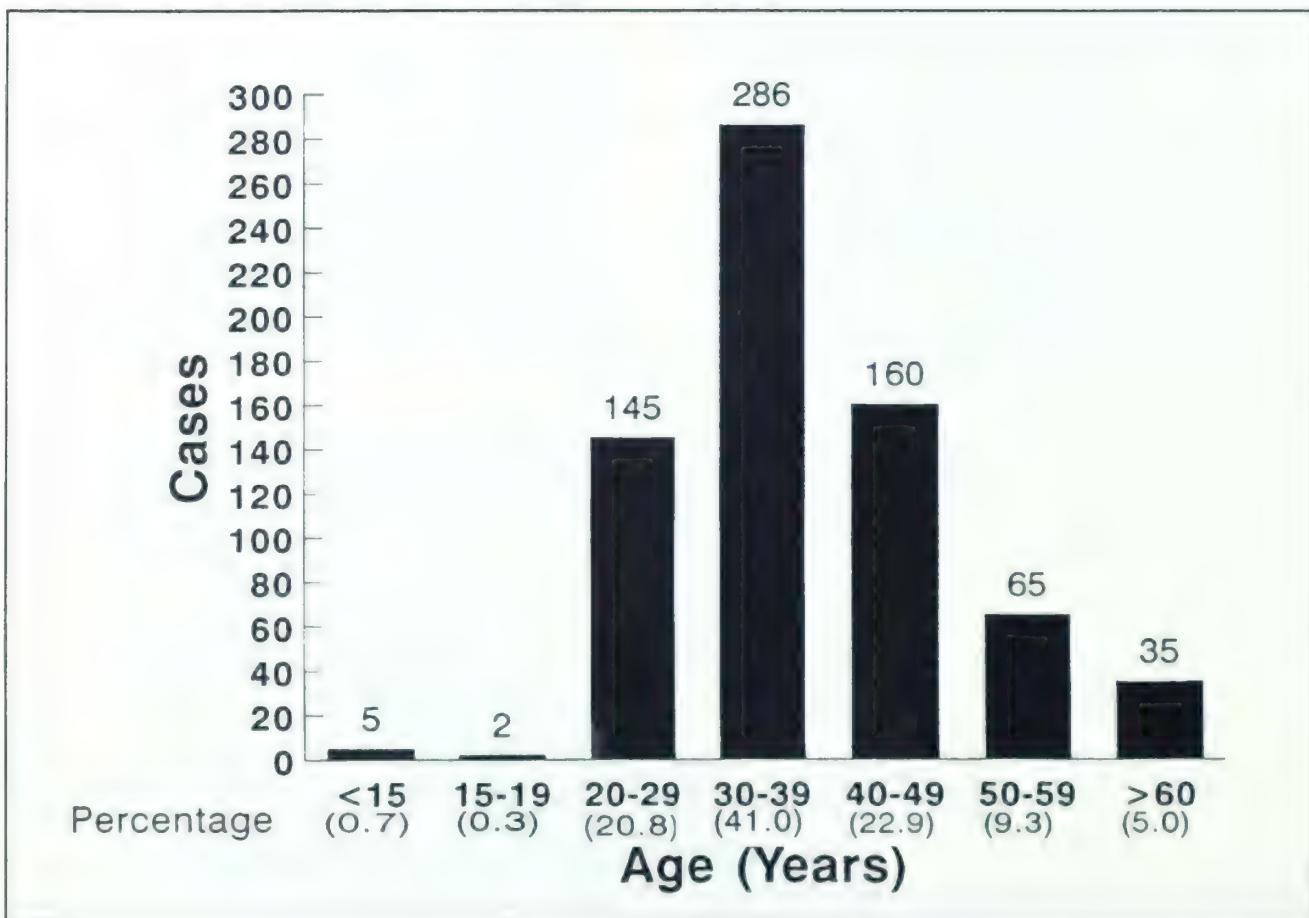
* Refers to the city of Red Deer and North excluding Edmonton

^a Although 119 cases were reported in 1994 only 97 have 1994 as year of onset. The remaining cases have been used to update figures from previous years.

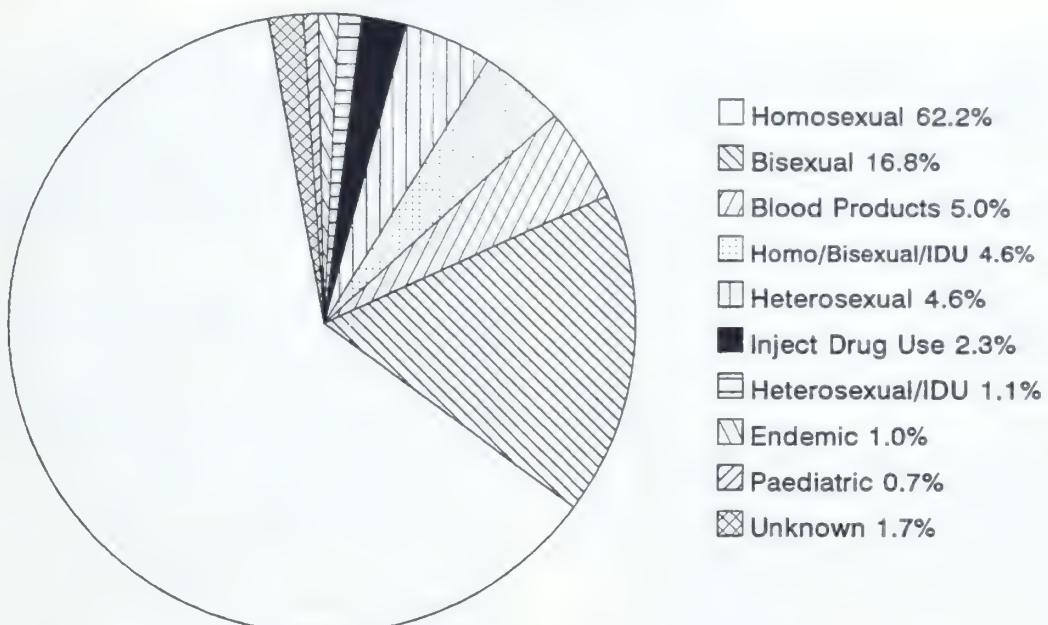
■ Table 9: AIDS Patients Primary Diagnosis and Status, Alberta, 1980-1994

Primary Diagnosis	Total Cases		Status	
	Number	%	Alive	Dead
Pneumocystis carinii pneumonia (PCP)	315	45.1	87	228
Kaposi's Sarcoma (KS)	78	11.2	28	50
PCP & KS	17	2.4	0	17
Other opportunistic infections	174	24.9	65	109
Other malignancies	28	4.0	12	16
HIV wasting	55	7.9	11	44
HIV encephalopathy	26	3.7	1	25
Other	5	0.7	0	5
Total	698	99.9	204	494

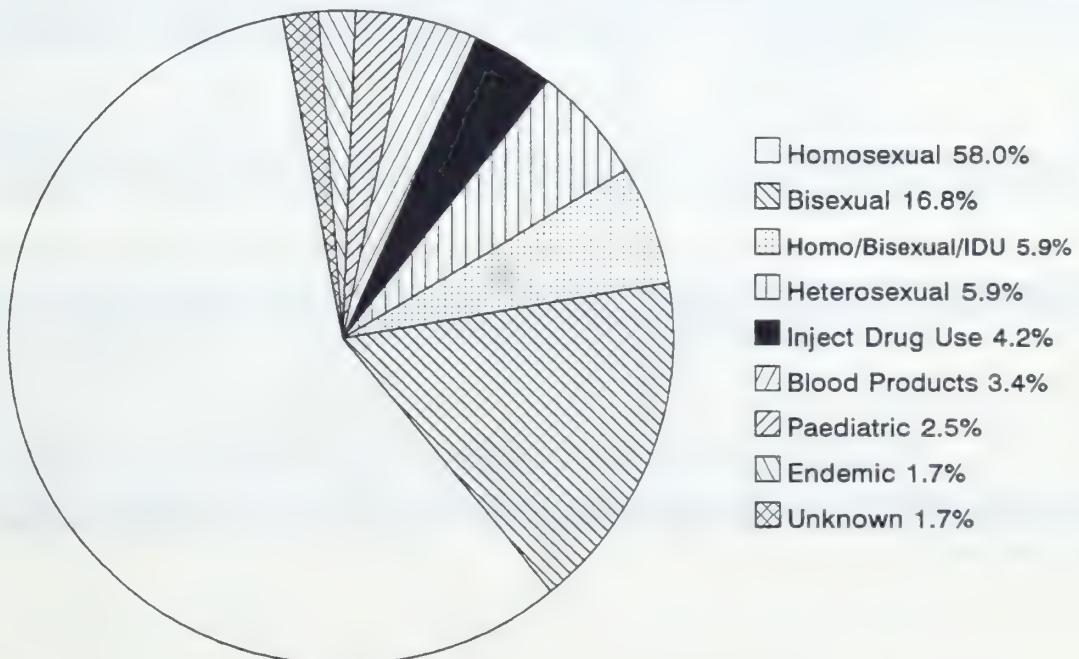
■ Figure 7: Age of AIDS Patients at Diagnosis, Alberta 1980 - 1994



■ Figure 8: Cumulative AIDS Cases by Risk, Alberta, 1980 - 1994



■ Figure 9: New AIDS Cases by Risk, Alberta, 1994



Partner Notification and Positive Test Investigation

Identifying new cases by notifying partners is one of the more effective strategies used to control STD, including HIV/AIDS. Partners listed on STD notifications from physicians, as well as partners identified by patients in the STD clinics, are located and advised to be tested and treated. In 1994, 74 per cent of the 7,975 notifications of reportable STDs from physicians and STD clinics contained information on partners. There was sufficient information to initiate an investigation to locate 3,631 partners, 50 per cent of the 7,217 partners identified. Of this number, investigations were carried out to locate 3,047 partners. No attempt was made to notify the additional 584 partners for two reasons. Either the infected patients chose to locate the partners themselves, or we were already aware that the partners had been treated. Of the investigations undertaken to locate partners, an average of 80 per

cent (range 70 per cent to 86 per cent) were completed successfully. The ratio of contacts with sufficient information for investigation to total notifications ranges from a low of 0.4:1 for physicians, to an average of 0.7:1 for the STD clinics (range 0.6:1 to 0.8:1).

Ensuring treatment of individuals known to be infected is another important strategy in the control of STD. An investigation is initiated for every reactive syphilis serology when there is no record of treatment. As well, individuals who are at greatest risk of disease sequelae, with laboratory confirmed *Neisseria gonorrhoeae* or *Chlamydia trachomatis*, when treatment has not been confirmed are located and treated appropriately. During 1994, there were 1,407 investigations undertaken, and 96 per cent were completed within the year.

■ Table 10: Number of Partners Listed on Notifications Received for Confirmed Cases of *Neisseria gonorrhoeae*, NGU/MPC, *Chlamydia trachomatis* and Syphilis, Alberta, 1994

Reporting Agency	Total Notifications Received	Notifications Received with Partner Information	Total Number of Partners	Partners with Sufficient Information for Investigation	Percentage of Total Partners
Physicians	5911	3826	4515	2283	51%
Edmonton Clinic	1107	1103	1432	540	45%
Calgary Clinic	838	824	1022	616	60%
Ft McMurray Clinic	119	119	248	92	37%
Total	7975	5872	7217	3631	50%

■ Table 11: Number and Outcome of Investigations Carried Out by Sexually Transmitted Disease Services, Alberta, 1994

Clinics	Partner Notifications				Positive Tests* Investigations			
	Located	(%)	Closed/Unlocated	Remaining Open	Total	Completed	Remaining Open	Total
Edmonton	708	(70)	265	40	1013	407	13	420
Calgary	570	(86)	64	26	660	418	6	424
Ft McMurray	53	(78)	11	4	68	50	4	54
Mobile	1121	(86)	74	111	1306	482	27	509
Total	2452	(80)	414	181	3047	1357	50	1407

* Follow up to positive laboratory reports.

STD Clinics - Patient Services

Clinic attendance decreased again in 1994 by three per cent in keeping with the decreasing incidence of notifiable STDs. Decreases ranged from one per cent in Fort McMurray to four per cent in Calgary. A larger decrease was noted in new admissions (seven per cent) versus former patients (one per cent). The male to female ratio of patients fell from 1.7:1 to 1.5:1, largely due to an increase in the number of women using the services of the STD clinics.

HIV-related visits increased a dramatic 18 per cent and accounted for 47 per cent of all clinic visits. Men and women increased use of the clinics, for HIV related visits, equally. HIV testing, including pre- and post-test counselling, as well as continuing care for HIV positive individuals, are included in the range of services under HIV-related visits.

Categorizing patient's visits to clinics according to their STD diagnosis reflects the degree of importance that HIV plays in the clinic. HIV concern is the primary reason for visiting a clinic in all three cities; general STD examinations is the second reason. Patients seeking a general examination for

STDs are usually asymptomatic and concerned that they may have been exposed to an STD. Nongonococcal urethritis ranked third in all clinics. Human papilloma virus continues to assume increasing importance as patients and physicians become more familiar with early recognition. Approximately two-thirds of all human papilloma virus visits are return visits for ongoing treatment with cryotherapy or podophyllin. Among women with vaginitis attending the clinics, candidiasis continues to be the most common etiology, followed by bacterial vaginosis.

Both the Edmonton and Calgary clinics have a clinic physician on staff. The proportion of patients seen by the physicians remained relatively constant at seven per cent (Edmonton eight per cent, Calgary six per cent). With a decrease in total clinic attendance, visits to physicians also decreased. There continues to be a striking predominance of men being seen by physicians; the male to female ratio is 4.8:1. This ratio is easily explained by the major role the clinics assume in providing ongoing care for patients infected with HIV.

Table 12: Patient Utilization of STD Clinics, Alberta, 1994

	New Admissions	Former Patients	Total Visits
Edmonton	3723	10731	14454
Calgary	3628	7537	11165
Fort McMurray	314	513	827
Total	7665	18781	26446

Table 13: HIV Related Visits at STD Clinics, Alberta, 1994

	Male	Female	Total
Edmonton	4222	2530	6752
Calgary	3461	2275	5736
Fort McMurray	141	221	362
Total	7824	5026	12850

Table 14: Patient Visits by STD Diagnosis*, Alberta, 1994

	Edmonton	Calgary	Ft.McMurray
HIV Related	46.7	51.4	43.8
STD Examination	36.3	12.5	20.8
Urethritis - non gonococcal	14.0	9.7	14.3
Human papilloma virus	13.5	8.4	2.3
Cervicitis - non gonococcal	8.4	3.0	11.7
Vaginitis	4.4	7.1	22.4
bacterial vaginosis **	21	35	69
candida species	54	55	29
T. vaginalis	26	11	2
Chlamydia trachomatis	2.9	4.5	8.7
Herpes simplex virus	2.2	2.8	5.2
Gonorrhea	1.4	0.7	2.0
Pelvic inflammatory disease	0.9	2.8	0.2
Syphilis	0.6	1.7	0.1

* Expressed as percentage of total visits, where appropriate sex specific

** proportion of all cases of vaginitis

Table 15: STD Physician Visits, Alberta, 1994

	Physician Visits		
	Male	Female	Total
Edmonton	973	141	1114
Calgary	484	165	649
Total	1457	306	1763

STD Clinics - Serologic Tests

Although clinic attendance dropped three per cent, serologic testing increased nine per cent. This is largely due to increased HIV testing. The overall increase was 35 per cent, ranging from a decrease of 25 per cent for women tested in Fort McMurray to a 44 per cent increase for men tested in Edmonton. Despite this large increase, the proportion of reactive results was relatively stable. HIV testing led to identifying 62 reactive HIV results in 1994. Of the reactive results, 54 (87 per cent) occurred in men: 67 per cent among men having sex with men, 24 per cent among injection drug users and 7 per cent among heterosexuals. Of the eight reactive results in women, transmission was through heterosexual

contact for half and injection drug use for the other half. These figures clearly indicate a continuing shift in new HIV infection to heterosexuals and injection drug users from men having sex with men.

Syphilis serology fell three per cent, but the proportion of reactive serology rose by 3.4 per cent. Because disease incidence did not increase, this likely reflects old treated disease.

Hepatitis B serology increased 14 per cent. The largest increase was in the Calgary clinic and is related to a change in clinic policy regarding screening. As well, a larger proportion of patients are requesting screening for this infection.

Table 16: Serologic Testing at STD Clinics, Alberta, 1994

		Syphilis		HIV Antibody		Hepatitis B	Total
		Male	Female	Male	Female		
Edmonton	Taken	3191	2416	1979	1617	872	10075
	Positive	149(4.7%)	75(3.1%)	27(1.4%)	7(0.4%)		
Calgary	Taken	2761	1990	1746	1367	765	8629
	Positive	83(3.0%)	46(2.3%)	27(1.5%)	1(0.07%)		
Ft. McMurray	Taken	149	184	55	101	142	631
	Positive	1(0.7%)	6(3.3%)	0	0		
Total		10691		6865		1779	19335

STD Clinic - Laboratory Investigation

The most frequently performed laboratory procedures in each clinic are demonstrated in Table 17. Each STD clinic has on site access to microscopes. All nurses are able to prepare and interpret methylene blue and gram stain of urethral and endocervical smears, darkfield microscopy, and wet mount examinations. All other laboratory procedures are carried out by the Provincial Laboratories of Public Health in Calgary and Edmonton.

Comparing urethral smears demonstrates the prevalence of nongonococcal urethritis in relation to gonorrhoea. This rapid, simple investigation allows health care workers to easily make an accurate diagnosis. Vaginal wet mount and gram stain examinations are extremely useful in diagnosing bacterial vaginosis and candida. Trichomonas was infrequently seen, with only two per cent to six per cent of all specimens demonstrating trichomonads.

Very low numbers of darkfield examinations were carried out, and none were positive. This reflects the very low incidence of infectious syphilis.

In contrast to increased serologic testing, microbial specimens decreased in proportion to decreasing clinic attendance. Although the number of gonococcal isolates continues to decrease, the proportion positive has remained stable. This ranged from a low of 0.4 per cent in female patients in the Calgary clinic to a high of 2.2 per cent in male patients in the Edmonton clinic. Despite a total of

only 86 isolates of *Neisseria gonorrhoeae* from men, three (3.5 per cent) were rectal specimens. Again, this clearly indicates unprotected homosexual contact with its attendant high risk of HIV transmission.

In contrast, the prevalence of *Chlamydia trachomatis* increased in male patients in both Edmonton and Calgary, as well as in female patients in Calgary (Edmonton: males 3.5 per cent to 5.5 per cent, Calgary: males 6 per cent to 7.6 per cent, females 5 per cent to 7.4 per cent). The level of infection remains constant in female patients in the Edmonton STD Clinic and decreased in both male and female patients in the Fort McMurray STD Clinic (11 per cent to 4 per cent). These changes are difficult to explain because of the decreasing level of disease in the province. They likely reflect changing characteristics of those people who visit the clinics (i.e. returning former patients who may be at higher risk and a decrease in new admissions).

Prevalence of herpes simplex virus decreased in male patients but increased in female patients. However, these changes were too small to draw any firm conclusions.

Abnormal Pap smears reflect the presence of atypia, HPV (human papilloma virus) effect and changes consistent with CIN I, II or III. Of all women undergoing a Pap smear, 17 per cent to 22 per cent demonstrated abnormalities. This reaffirms the value of screening this high risk population at the time of STD examination.

Table 17: Sexually Transmitted Disease Clinic Laboratory Investigations, Alberta, 1994

	Edmonton Clinic		Calgary Clinic		Ft.McMurray Clinic		Total	
	Taken	Positive	Taken	Positive	Taken	Positive	Taken	Positive
Urethral Smear	2159		1220		151		3530	
<i>Neisseria gonorrhoeae</i>		108		17		2		127
Non-gonococcal urethritis		891		414		50		1355
Wet mount/gram stain	893		1183		239		2315	
Bacterial vaginosis		125		189		91		405
Candida		193		194		23		410
Trichomonas		56		19		6		81
Darkfield	0	0	3	0	0	0	3	0
<i>Neisseria gonorrhoeae</i> culture								
- Male	urethra	2682	63	2298	16	146	3	5126
	rectal	77	2	66	1	0	0	143
	pharynx	161	0	124	1	1	0	286
	Total	2920	65	2488	18	147	3	5555
- Female	cervix/urethra	2923	26	1940	9	222	2	5085
	rectal	2482	7	1664	4	171	0	4317
	pharynx	58	1	15	0	0	0	73
	Total	5463	34	3619	13	393	2	9475
<i>Chlamydia trachomatis</i> identification								
- Male	urethra	2844	155	2322	177	152	7	5318
- Female	cervix/urethra	2777	159	1854	137	407	13	5038
Herpes simplex virus								
- Male	urethra	189	13	12	2	0	0	201
	lesion	403	142	194	76	20	5	617
	Total	592	155	206	78	20	5	818
- Female	cervix	337	17	188	35	37	3	562
	lesion	397	113	227	72	14	9	638
	Total	734	130	415	107	51	12	1200
Pap Smear		961	160	486	105	0	0	1447
								265

Education Unit Activities

The Education Unit provides STD/HIV/AIDS education throughout Alberta. The unit fulfils its mandate by providing educational sessions for individuals and groups, as well as by managing a telephone information system. During 1994, nurse educators were active members of inter-agency committees in Edmonton and Calgary. These committees dealt with STD/HIV prevention and sexuality issues in two ways: generally, or by focusing on specific target audiences like adolescents and ethnic or aboriginal communities. A highlight for unit staff was a presentation, at the Western Canadian Conference on Sexual Health in Edmonton, titled "STD/HIV Health Promotion and Disease Prevention by Phone."

The Education Unit held a total of 773 education sessions in 1994. Nurse educators provided 704 sessions and medical staff made the remaining 69 presentations. The total number of sessions in 1994 was similar to 1993. Orientation sessions for medical and nursing students are included in 1994 statistics. Whereas in previous years these sessions were provided on a one-to-one basis, now information is more frequently presented to groups.

The largest percentage of presentations by nurse educators was to students (47 per cent). Of the 330 student sessions, 83 per cent were for elementary, junior and senior high school students,

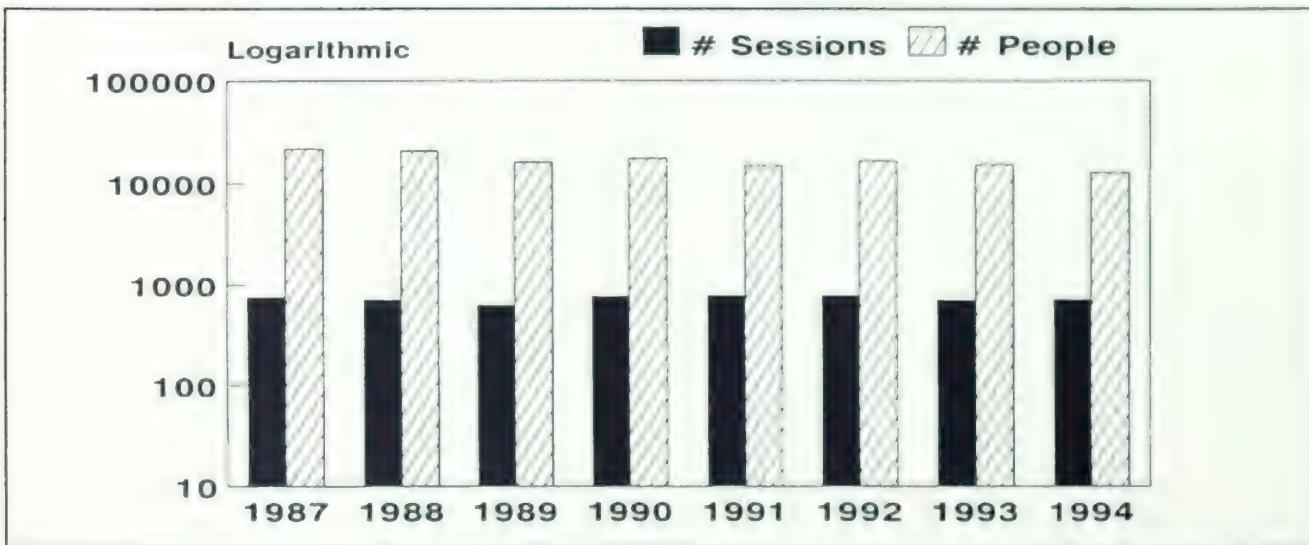
and 17 per cent were to post secondary students. The number of sessions decreased seven per cent from 1993, because of a decrease in presentations to elementary, junior and senior high school students. There was no change in the number of presentations to post secondary students.

Although inservice/workshops for health care workers and the workplace continue to be an important function of the Education Unit, the number of sessions decreased by 33 per cent from 99 in 1993, to 66 in 1994. These sessions accounted for nine per cent of the total. Sessions held for staff and inmates of correctional centres accounted for two per cent of the total and decreased by 60 per cent. No inservice/workshops were presented to teachers in 1994. This reduced number of sessions for professional audiences reflects a change as organizations and agencies have trained their own educators to provide in-house sessions.

Education sessions for the general public, life skills groups, and in-house consultations accounted for 4 per cent, 9 per cent and 14 per cent of the total, respectively. Sessions for the general public decreased 20 per cent and sessions for life skills groups decreased five per cent. The number of in-house consultations did not change.

Medical, nursing and pharmacy students accounted for 11 per cent of the total sessions. These students, either individually or as a group, spend

■ Figure 10: Education Unit, Alberta, 1987 - 1994



time with STD Services as part of a comprehensive STD education experience.

To gain access to STD/HIV/AIDS information through the telephone information system, callers have three choices. The first is a computer-answered STD/HIV/AIDS information line. This line is toll free, province wide and provides 24 hour coverage. The caller gains access to basic information through an interactive computer system of recorded scripts. In 1994, there were 28,256 calls, an eight per cent reduction from the previous year. This is likely due to the absence of any advertising campaign. Of the 28,256 calls, 63 per cent were seeking information on STD and 37 per cent on HIV/AIDS. When callers to the toll-free line want more detailed or specific information, they can make the second choice of

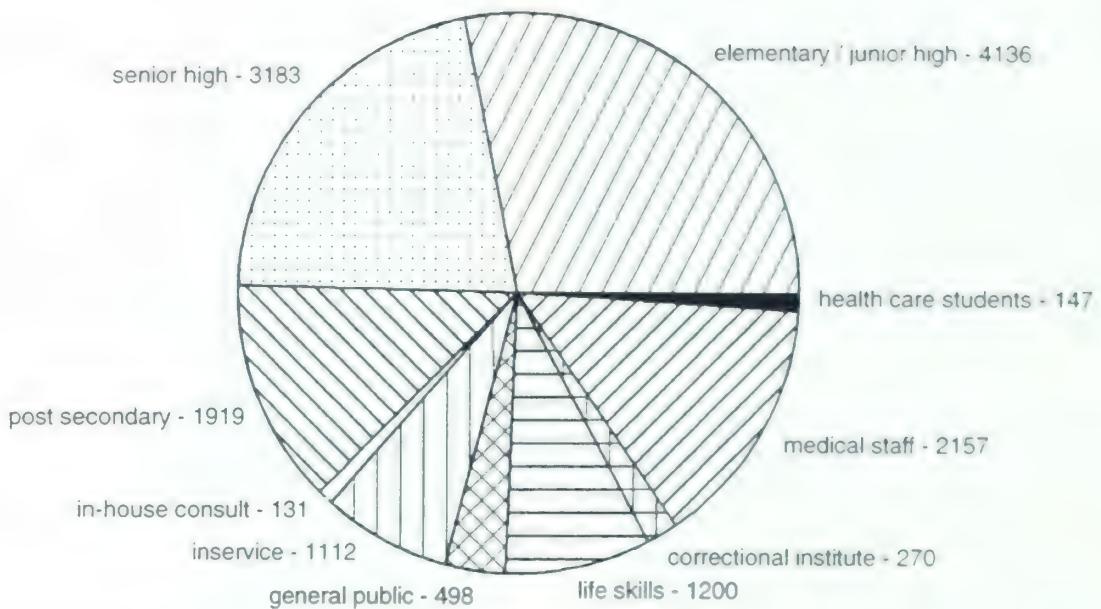
speaking with a nurse. The 2,586 calls to a nurse that resulted from calling the toll-free line was an increase of seven per cent over 1993. Of these calls, 56 per cent were looking for STD information and 44 per cent HIV/AIDS information. Callers can choose a third option and call STD Services directly. These calls are then referred to a nurse. In 1994, 7,025 calls for information were received by STD Services in Edmonton and Calgary. This 16 per cent decrease from 1993, again, likely reflects the absence of any advertising campaign. STD information was requested 83 per cent of the time and HIV/AIDS information 17 per cent of the time. The regular and consistent use of the information system by the public demonstrates the broad acceptance and accessibility of this service to Albertans.

Table 18: Type of Education Session by Nurse Educator, Alberta, 1994

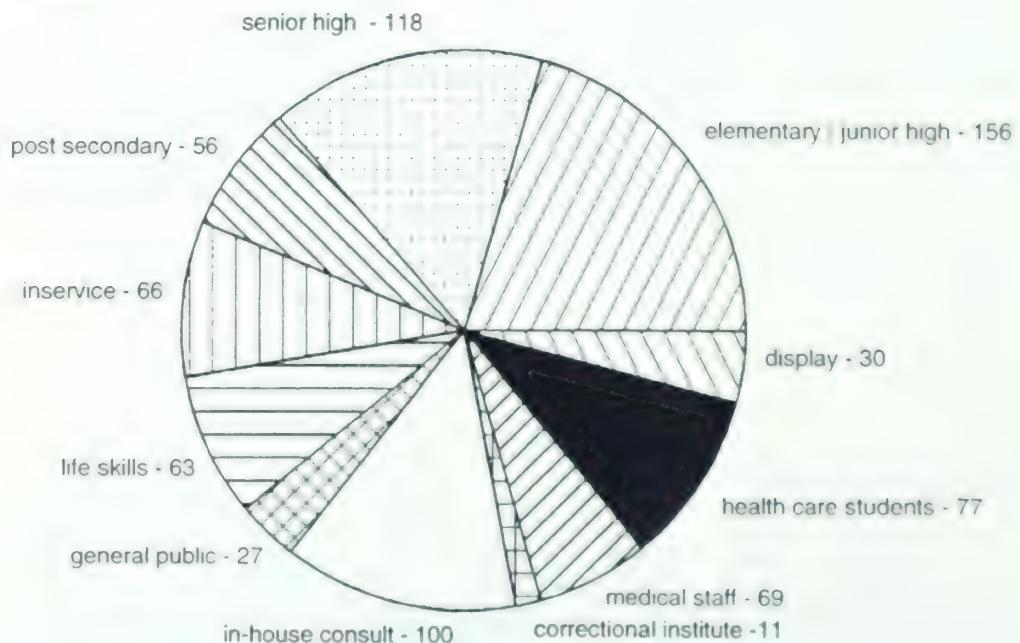
Types of Session	Number of Sessions	Number of Participants
SCHOOLS		
Elementary	12	240
Junior High	144	3896
Senior High	118	3183
POST SECONDARY SCHOOLS	56	1919
University/College/Nait/Sait	32	1295
Continuing Education	7	66
Nursing Schools	17	558
INSERVICE	66	1112
Hospital	31	307
Health-Unit	2	26
Other Health Care Workers	14	251
Workplace	19	528
LIFE SKILLS	63	1200
Adult	45	993
Adolescent	18	207
GENERAL PUBLIC	27	498
Adult	20	379
Adolescent	7	119
CORRECTIONAL INSTITUTIONS	11	270
Inmates	7	134
Staff	4	136
IN HOUSE CONSULTATION	100	131
Appointments		
Drop in		
DISPLAYS	30	
PROFESSIONAL ORIENTATION and CLINIC/EDUCATION EXPERIENCE	77	147
Medical Students	52	96
Nursing Students	24	50
Pharmacy Students	1	1
Total	704	12596
PRESENTATIONS by MEDICAL STAFF	69	2157
Medical Presentations	49	
Media Interviews	20	

■ Figure 11: Education Unit, Alberta, 1994

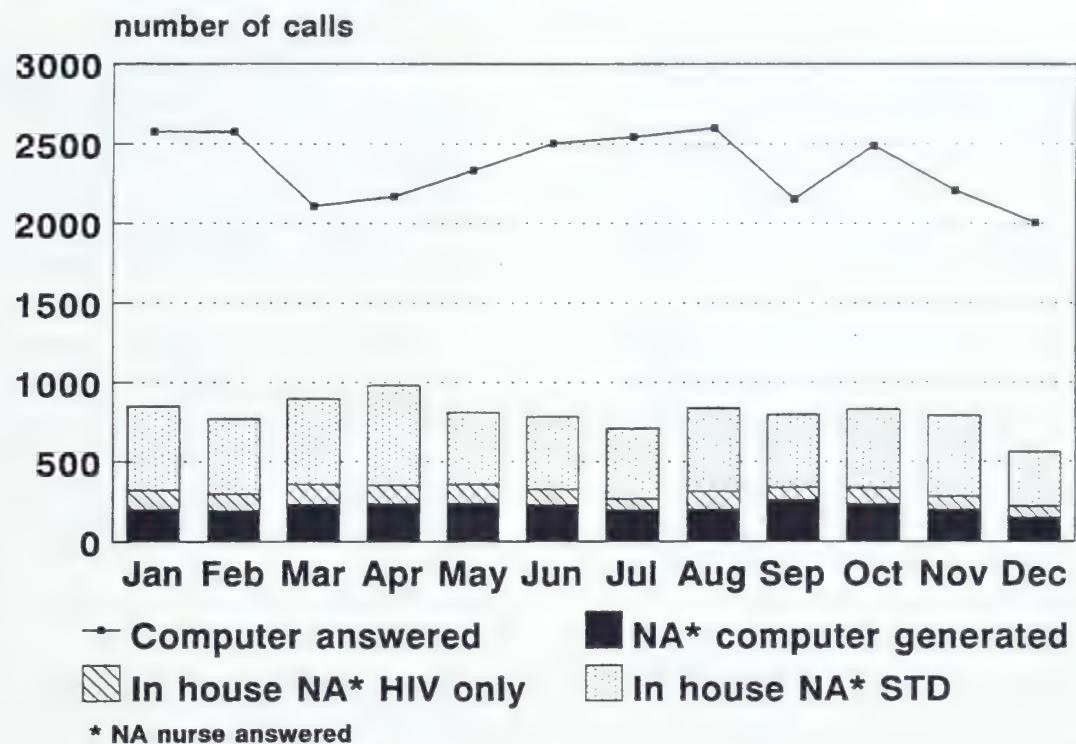
Number of People



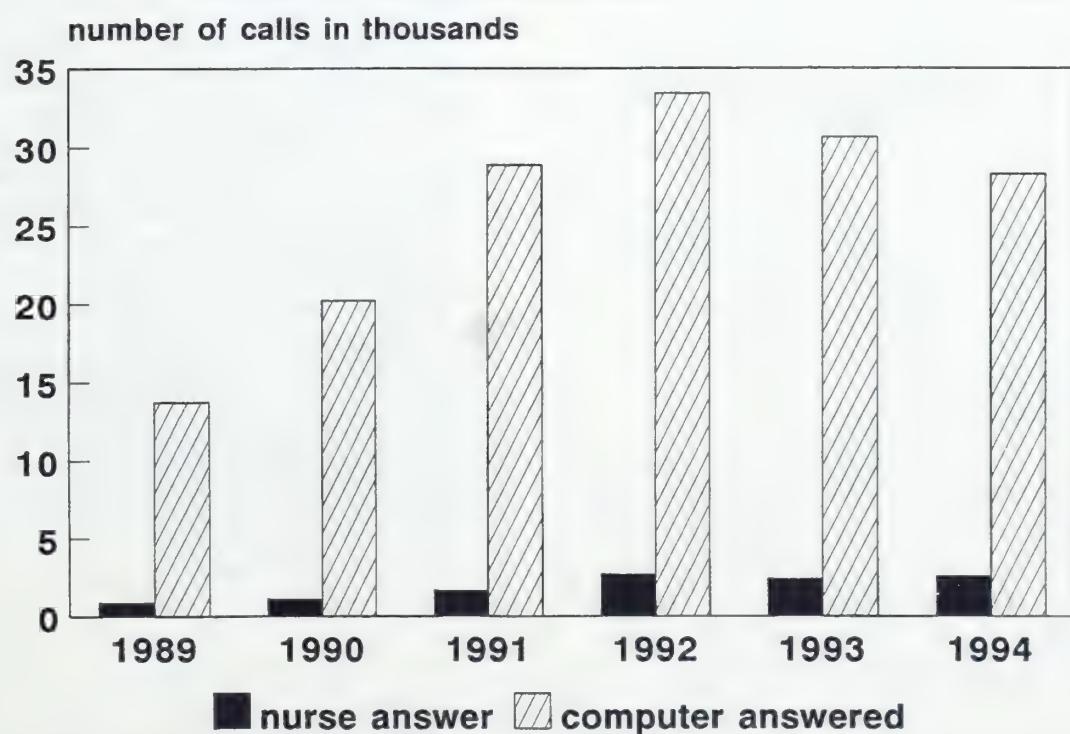
Number of Sessions



■ Figure 12: Nurse/Computer Answered Calls, Alberta, 1994



■ Figure 13: STD / HIV / AIDS Information Line, Alberta 1989 - 1994



Research: Clinical Investigation Unit

During 1994, the following research projects were undertaken or completed by the Clinical Investigation Unit (CIU) and/or the Edmonton and Calgary STD Clinics. This was an extremely busy and successful year with involvement in seven studies completed and an additional 12 studies ongoing.

Studies completed:

1. Comparison Combination Chemotherapy in Treatment of *Mycobacterium avium complex* (MAI) Bacteraemia in Patients with Acquired Immunodeficiency Syndrome (AIDS)
Principal Investigator - Dr. S. Shafran
Sponsor - Canadian HIV Trials Network
Participation - University of Alberta, Edmonton STD Clinic, CIU
2. Comparison of AZT and DDI Versus AZT, DDI and Interferon for the Treatment of HIV Infection
Principal Investigator - Dr. S. Houston
Sponsor - Burroughs Wellcome Inc
Participation - University of Alberta, Edmonton STD Clinic, CIU
3. Fluconazole Versus Terconazole for the Treatment of Vaginal Candidiasis
Principal Investigator - Dr. B. Romanowski
Sponsor - Pfizer Canada Inc.
Participation - CIU, Edmonton STD Clinic
4. Evaluation of Contact Tracing for *Neisseria gonorrhoeae* and *Chlamydia trachomatis* for the Areas Covered by the Mobile Unit
Principal Investigator - Ruth Sutherland
Co-investigator - Kathleen Turner
Participation - Mobile Unit STD Services, Provincial STD Program
5. Anonymous Unlinked HIV Seroprevalence Survey to Monitor Prevalence of HIV Among Patients Attending an STD Clinic
Principal Investigator - Dr. B. Romanowski
Sponsor - STD Research Fund
Participation - CIU, Edmonton STD Clinic, Provincial Laboratory of Public Health Northern Alberta
6. A Comparative Study of the Access® Chlamydia and Blocking Assay, Chlamydia Tissue Culture and a Reference Chlamydia Assay
Principal Investigator - Mr. Errol Prasad
Sponsor - Sanofi Diagnostics Pasteur Inc.
Participation - Provincial Laboratory of Public Health Northern Alberta, Edmonton STD Clinic
7. Evaluation Access® Chlamydia and Chlamydia Tissue Culture on Male Urine Samples
Principal Investigator - Mr. Errol Prasad
Sponsor - Sanofi Diagnostics Pasteur Inc.
Participation - Provincial Laboratory of Public Health Northern Alberta, Edmonton STD Clinic

Studies Initiated/Ongoing:

1. Ongoing Evaluation of CSF Examination in Patients with Syphilis
Principal Investigator - Dr. B. Romanowski
Co-investigator - Ruth Sutherland
Participation - Provincial STD Program
2. Review of HIV Infected Patients with Atypical Mycobacterial Infection
Principal Investigator - Patricia Campbell
Co-investigator - Dr. B. Romanowski
Participation - CIU, Edmonton STD Clinic
3. Comparison of Single-dose Azithromycin Therapy to Seven-Day Doxycycline Therapy in the Treatment of NGU and Chlamydial Cervicitis
Principal Investigator - Dr. B. Romanowski
Sponsor - Pfizer Canada Inc.
Participation - CIU, Edmonton STD Clinic
4. Canadian Women's HIV Study
Principal Investigator - Dr. C. Hankins
Co-investigator - Dr. B. Romanowski
Participation - CIU, Edmonton STD Clinic, University of Alberta

5. Anonymous Unlinked HIV Seroprevalence Survey Among Persons Attending STD Clinics
Principal Investigator - Dr. B. Romanowski
Sponsor - Division of HIV/AIDS Epidemiology, Bureau of Communicable Disease Epidemiology, Laboratory Centre for Disease Control, Ottawa
Participation - CIU, Edmonton and Calgary STD Clinics, Provincial Laboratories of Public Health Northern and Southern Alberta

6. Famciclovir Versus Acyclovir in HIV Positive Patients with Recurrent Herpes simplex Infection
Principal Investigator - Dr. B. Romanowski
Sponsor - SmithKline Beecham Pharmaceuticals
Participation - CIU, Edmonton STD Clinic, University of Alberta

7. Efficacy of Herpes simplex Candidate Vaccine in the Suppression of Recurrent Genital Herpes Disease
Principal Investigator - Dr. B. Romanowski
Sponsor - SmithKline Beecham Pharmaceuticals
Participation - CIU, Edmonton STD Clinic

8. Efficacy of Herpes simplex Candidate Vaccine in the Prevention of Genital Herpes Primary Disease in HSV Negative Consorts of HSV Infected Sexual Partners
Principal Investigator - Dr. B. Romanowski
Sponsor - SmithKline Beecham Pharmaceuticals
Participation - CIU, Edmonton STD Clinic

9. Comparison of Quality of Life in Patients Treated with Suppressive Acyclovir Versus Episodic Acyclovir in the Management of Recurrent Genital Herpes
Principal Investigator - Dr. B. Romanowski
Sponsor - Burroughs Wellcome Inc
Participation - CIU, Edmonton STD Clinic

10. Efficacy of Delavirdine Combined with DDI Versus DDI Alone in HIV Infected Individuals with CD4 \leq 300/mm³
Principal Investigator - Dr. Stephen Shafran
Co-investigator - Dr. B. Romanowski
Sponsor - Upjohn Pharmaceuticals
Participation - University of Alberta, CIU, Edmonton STD Clinic

11. Efficacy of AZT Alone Versus AZT Plus Saquinavir Versus AZT Plus DDC Plus Saquinavir in Previously Untreated HIV Infected Individuals with CD4 counts $<$ 350 cells/mm³
Principal Investigator - Dr. Stephen Shafran
Co-investigator - Dr. B. Romanowski
Sponsor - Hoffman La Roche Ltd.
Participation - University of Alberta, CIU, Edmonton STD Clinic

12. Evaluation of HIV Partner Notification Carried Out by STD Services, Alberta Health
Principal Investigator - Dr. B. Romanowski
Co-investigator - Ruth Sutherland
Participation - STD Services, Alberta Health

Appendices

■ Appendix 1: Cases of Notifiable Diseases by Age and Sex, Alberta, 1994

	<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39		40-59		60+		Age N/S		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Gonorrhoea	1	1			3	8	41	92	62	70	48	32	77	30	31	5	4					1	506	
Chlamydia	6	8	1	2	86	225	1584	509	1454	247	434	157	236	34	45	1	6					8	5043	
NGU/MPC					5	19	300	231	672	259	402	126	462	100	175	25	11	59	13	2859				
Syphilis (Total)	1									3	6	4	11	7	9	4	8	13			66			
Primary											1										1			
Secondary													1	1							2			
Early Latent												1	2	2							5			
Late Latent												3	4	2	7	6	7	4	8	11		52		
Neuro Syphilis														1	2						2			
Congenital	1																				1			
TOTAL	7	9	2	2	2	8	113	566	1907	1243	1786	703	596	707	373	249	79	24	19	59	22	8474		
Gonorrhoea	Male	266	Female	240	Chlamydia	Male	1179	Female	3864	NGU/MPC	Male	2086	Female	773	Syphilis	Male	35	Female	31					

Appendices

■ Appendix 2: Cases of Confirmed *Neisseria gonorrhoeae* According to Reporting Agency by Age and Sex, Alberta, 1994

	<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39		40-59		60+		Age NS		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Physicians	1				3	5	25	69	39	53	37	26	42	22	14	4	3					1	244	
Edmonton Clinic					11	10	14	7	8	4	17	5	11	1									88	
Calgary Clinic			1	1	4	2			1	10	2		5										28	
Fl McMurray Clinic					1				1			3												5
Positive Cultures			1		2	4	8	7	7	3	1	5	1	1	1								41	
Total	1	1	3	8	41	92	62	70	48	32	77	30	31	5	4							1	506	

■ Appendix 3: Cases of Confirmed *Chlamydia trachomatis* According to Reporting Agency by Age and Sex, Alberta, 1994

	<1		1-4		5-9		10-14		15-19		20-24		25-29		30-39		40-59		60+		Age NS		TOTAL	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Physicians	5	5			1		66	167	1375	321	1268	147	383	92	197	17	37						7	4034
Edmonton Clinic			3	30	60	65	50	36	21	27	6	7	1										306	
Calgary Clinic			3	12	47	85	55	27	8	26	8	8	3										282	
Fl McMurray Clinic					2	6	2	5	2	1	1												19	
Positive Cultures	1	3	1	1	14	96	36	76	35	21	11	25	2	4	1								1	
Total	6	8	1	2	86	225	1584	509	1454	247	434	157	236	34	45	1	6						8	5043

Appendices

■ Appendix 4: Cases of Confirmed Non-gonococcal Urethritis/Mucopurulent Cervicitis According to Reporting Agency by Age and Sex, Alberta, 1994

	10-14		15-19		20-24		25-29		30-39		40-59		60+		Age N/S		TOTAL		
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Physicians	5	13	188	151	367	135	198	70	201	54	60	8	4			57	13	1524	
Edmonton Clinic		1	64	30	176	53	110	21	159	16	77	7	6			2		722	
Calgary Clinic		38	28	116	62	85	30	93	20	34	9	1						516	
Ft. McMurray Clinic		5	10	22	13	9	9	5	9	10	4	1						97	
Total	5	19	300	231	672	259	402	126	462	100	175	25	11			59	13	2859	

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